

## ***New Zealand Certificate in Automotive Engineering (Level 3)*** ***[NZCAE]***

To be read in conjunction with Unitec’s Academic Statute and associated Policies and Procedures.

These programme regulations apply to the New Zealand Certificate in Automotive Engineering [NZCAE] programme, which leads to the New Zealand Certificate in Automotive Engineering (Level 3) qualification (120 Credits) [3097-1].

These regulations come into effect from Semester 1, 2021.

### **1. Ngā Ture Hei Whakaurunga | Admission Requirements**

*Admission Requirements comply with Unitec’s Admission Requirements Guidelines.*

To be eligible for admission to this programme, all applicants must meet three admission requirements:

- a. Requirements for either general admission, special admission, or discretionary admission
- b. Any additional Programme specific requirements
- c. English language requirements

#### **1.1 Whakaurunga Whānui | General Admission**

To be admitted to this programme all applicants must be at least 16 years of age on the date of the programme’s commencement for the semester in which they wish to enrol (or provide a completed Early Release Exemption form), and meet the following requirements:

- Achieved the New Zealand Certificate in Educational Achievement (Level 1) in Mathematics, English, and Physics or General Science; or
- Equivalent.

#### **1.2 Whakaurunga Motuhake | Special Admission**

Applicants must have:

- a. attained the age of 20 years on or before the first day of the semester in which study for the programme is to commence; and
- b. provided sufficient evidence of aptitude or appropriate work or other life experience that would indicate a successful outcome in the qualification.

#### **1.3 Whakaurunga Kōwhiringa | Discretionary Admission**

In exceptional cases an applicant who does not meet the general admission requirements and who has not reached the age of 20 on or before the first day of the semester in which study for the Certificate is to commence may apply for discretionary admission.

In assessing whether to grant discretionary admission in exceptional cases, the primary focus will be on the applicant’s level of preparedness for study at the required level.

#### **1.4 Whakaurunga Tautui | Programme Specific Requirements**

There are no programme specific requirements.

#### **1.5 Whakaurunga Reo Pākehā | English Language Admission Requirements**

All applicants must provide evidence that they have the necessary English language proficiency required for the Programme as demonstrated by the equivalence of NCEA (Level 1) English.

International applicants and any Domestic applicant for whom English, Māori or NZ Sign is not their first language must also provide evidence that they have the necessary English language proficiency required for the Programme as demonstrated by an equivalent described in [NZQA Rules](#) and on the Unitec [English Language Requirements for International Students](#) Web-page.

### **2. Paearu Kōwhiri**

#### **2.1 Paearu Kōwhiri | Selection Criteria**

<p><b>Tukanga   Selection Criteria &amp; Process</b></p> <p><i>Selection Criteria and Processes comply with Unitec's Admission Requirements Guidelines.</i></p>	<p>When the number of eligible applicants for admission exceeds the number of places available, the following selection criteria will be applied:</p> <ul style="list-style-type: none"> <li>• Applicants with high levels of achievement in NCEA Level 1 English, Maths, and Physics or General Science will be preferred candidates for entry to the Programme.</li> <li>• Applicants with low levels of achievement in NCEA Level 1 English, Maths, and Physics or General Science may be required to undertake a pre-entry diagnostic analysis to identify any extra support an applicant may require to enter the programme.</li> </ul> <p><b>2.2 Tukanga Kōwhiri   Selection Process</b></p> <p>Selection will be made by Unitec staff members with the delegated authority to offer places to applicants. These staff members will select students on the basis of written information supplied on the enrolment form. At the discretion of the staff members, an interview (face-to-face or electronic) may be required. A list of delegated staff members is maintained by the Programme Academic Quality Committee (PAQC) responsible for the programme.</p>
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<p><b>3. Ngā Ture Hei Whakawhiwhi Tohu Mātauranga   Requirements for the Award of the Programme</b></p> <p><i>Requirements comply with Unitec's Programme Completion and Awards Policy and associated procedure.</i></p>	<p><b>3.1 Whakaemi Tūtukitanga   Credit Accumulation</b></p> <p>To be awarded the New Zealand Certificate in Automotive Engineering (Level 3) a student must successfully complete a minimum of 120 credits in the pattern set out in Table 1 from the courses set out in Table 2a or 2b.</p> <p><b>Table 1: Credit Requirements for New Zealand Certificate in Automotive Engineering (Level 3)</b></p> <table border="1"> <thead> <tr> <th>Level</th> <th>Compulsory Credits</th> <th>Elective Credits</th> <th>Total Credits</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>120</td> <td></td> <td>120</td> </tr> <tr> <td></td> <td></td> <td></td> <td><b>120</b></td> </tr> </tbody> </table> <p>Students will be enrolled in either the full-time On Campus Delivery Pathway (Table 2a), or the Part-time Work based Delivery Pathway (Table 2b) (see 3.2 below).</p>	Level	Compulsory Credits	Elective Credits	Total Credits	3	120		120				<b>120</b>
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**Table 2a: On-campus Pathway Course Details**

Compulsory courses are shown in **bold**

Course No	Course Name	Credits	Pre- requisites	Co-requisites	Restrictions
Level 3					
<b>APTE3101</b>	<b>Automotive Workshop Safety</b>	<b>10</b>			
<b>APTE3102</b>	<b>Workshop Engineering Tools and Equipment - Compulsory</b>	<b>15</b>			
<b>APTE3103</b>	<b>Engines and Cooling System</b>	<b>15</b>			
<b>APTE3104</b>	<b>Engine Tuning and Fuel Systems</b>	<b>10</b>			
<b>APTE3105</b>	<b>Automotive Brakes and Steering</b>	<b>25</b>			
<b>APTE3106</b>	<b>Automotive Transmissions and Driveline Systems</b>	<b>15</b>			
<b>APTE3107</b>	<b>Automotive Electrical Technology</b>	<b>10</b>			
<b>APTE3108</b>	<b>Automotive Electronic and HVAC Systems</b>	<b>20</b>			

**Table 2b: Work-based Pathway Course Details**

Compulsory courses are shown in **bold**

Course number	Course title	Credits
<b>APTEU3856</b>	<b>Emergency procedures in the motor and related industries</b>	<b>2</b>
<b>APTEU16113</b>	<b>Safe working practices in an automotive workshop</b>	<b>2</b>
<b>APTEU21858</b>	<b>Work habits and safe work practices</b>	<b>4</b>
<b>APTEU229</b>	<b>Motor vehicle systems and main components</b>	<b>4</b>

APTEU231	Operation of two and four stroke petrol and diesel engines	4
APTEU233	Servicing a lead-acid automotive battery	2
APTEU234	Automotive starting and charging systems and their operation	4
APTEU235	Automotive ignition systems and their operation	4
APTEU239	Automotive manual transmissions	3
APTEU240	Petrol fuel systems	3
APTEU242	Changing the fluid and bleeding a brake hydraulic system	2
APTEU243	Carrying out basic tuning on a four-stroke petrol engine	4
APTEU918	Light vehicle final drive assembly operation	4
APTEU920	Manual and semi-automatic transmissions used on light vehicles	4
APTEU3400	Four-stroke petrol engine for condition using handheld test equipment	4
APTEU3877	Protecting vehicle electronics in the motor industry	2
APTEU1277	Communicating information in a specified workplace	3
APTEU5466	Removing and replacing light vehicle brake pads and shoes	2
APTEU15370	Business responsibilities towards customers within the automotive industry	4
APTEU21669	Hand tools and workshop equipment for motor industry applications	2
APTEU21670	General engineering tasks in the motor industry	3
APTEU21671	Carrying out general engineering tasks in the motor industry	4
APTEU21675	Automotive batteries	2
APTEU21676	Selecting test equipment and testing an automotive electrical circuit	4
APTEU21680	Automotive lubricants and sealants	3
APTEU21677	Diesel fuel systems	2
APTEU21692	Performing minor servicing tasks on a diesel fuel system	2
APTEU21686	Automotive cooling systems	2
APTEU21688	Disassembling and reassembling a four stroke multi-cylinder engine	3
APTEU21689	Hydraulic brake fluid, fluid replacement, and brake bleeding procedures	2
APTEU21720	Motorcycle, car, light and heavy commercial vehicle braking systems	3
APTEU21721	Vehicle steering and suspension systems	2
APTEU21722	Balancing wheels of a vehicle	2
APTEU21859	Hand tools and workshop equipment for an automotive application	2
APTEU21869	Removing and replacing road wheels	1
APTEU21716	Lubricants and sealants for automotive and related industry applications	1
APTEU22800	Air bags and seatbelt pre-tensioners	2
APTEU21717	Servicing automotive cooling systems	3
APTEU24148	Engine management systems	3
APTEU24307	Vehicle driveline components	2
APTEU22789	Warranties and guarantees that apply to the motor and related industries	4
APTEU23743	General legislation and regulations in the motor industry	2
APTEU24131	Electronic components and their application in the automotive industry	5
APTEU24448	Servicing automotive air conditioning systems	2

### 3.2 Mahi Waehanga Pāhekoheko | Integrated and Work-based components

In this programme, students will be in a formal agreement with an on-site supervisor and Unitec. As such a majority of the learning will take place through real life/practical work-based setting. Employers will support the work based learning and offer learners appropriate opportunities. Timetabled off-job training sessions supplement the workplace learning and focus predominantly on students acquiring

	<p>the underpinning knowledge to integrate with their practical workplace learning experiences and to make sense of complex situations.</p> <p><b>3.3 Mahi Akoranga   A Wāhanga   Course Load per Semester</b> The normal full-time course load is 60 credits per semester, or 75 credits with the approval of the relevant academic authority.</p> <p><b>3.4 Whakaurunga Takiwā   Enrolment Periods</b> The normal enrolment period is one year (full-time study) or two years (part-time study). Students who are prevented by ill health, or other cause, from completing the programme requirements within the maximum period of enrolment, the relevant academic authority may approve suspension of enrolment for up to a maximum of one semester. The maximum period to complete this Programme is 5 years.</p>																																
<p><b>4. Tūtukitanga Whakamihi   Credit Recognition</b></p> <p><i>Credit Recognition complies with Unitec's Assessment, Moderation and Grades Policy and associated procedure.</i></p>	<p><b>4.1 Whakawhiti Tūtukitanga   Cross Credit</b> Credits will not be awarded for successful study that took place more than 5 years prior to the date of first enrolment in the programme.</p> <p>a. A student may be awarded credits or exemptions in recognition of successful equivalent study, at the same or a higher level in the context of another programme.</p> <p>b. The credit recognition may be:</p> <ul style="list-style-type: none"> <li>i. specified, where there is direct equivalence of the learning outcomes of a completed course and a course in the programme; or</li> <li>ii. unspecified, where the previous study has taken place in a programme with a similar philosophy but there is no exact match in the programme's courses.</li> </ul> <p><b>4.2 Aromatawai Tōmua   Assessment of Prior Learning (APL)</b> Assessment of Prior Learning is available for all courses in this programme. APL decisions will be made on a case-by-case basis under the Unitec Assessment of Prior Learning Procedure.</p>																																
<p><b>5. Waeture Aromatawai   Assessment Regulations</b></p> <p><i>Assessment Regulations comply with Unitec's Assessment, Moderation and Grades Policy and associated procedure.</i></p>	<p><b>5.1 Paparahi Aromatawai   Assessment Basis</b> Assessment in this programme uses both achievement and competency-based grading scales for courses depending on the pathway.</p> <p><b>5.2 Ākoranga Taumata   Course grades</b> <b>Table 3a: Achievement based 4-point assessment system</b> Achievement is used for courses in the On-Campus Pathway detailed in Table 2a above. Course grades will be determined by the mathematical aggregation of weighted assessment marks and reported according to the following scales. Participants must obtain at least 50% overall score in order to pass achievement-based assessment.</p> <table border="1" data-bbox="360 1397 1136 1597"> <thead> <tr> <th>Grade</th> <th>Meaning</th> <th>Result</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Distinction</td> <td>Credits Earned</td> <td>80 – 100</td> </tr> <tr> <td>B</td> <td>Merit</td> <td>Credits Earned</td> <td>65 – 79</td> </tr> <tr> <td>C</td> <td>Pass</td> <td>Credits Earned</td> <td>50 - 64</td> </tr> <tr> <td>D</td> <td>Fail</td> <td>No Credits Earned</td> <td>0 - 49</td> </tr> </tbody> </table> <p><b>Table 3b: Competency based 3-point assessment system</b> Competency is used for courses in the Work-based Pathway as described in Table 2b above. Course grades will be determined according to the following criteria. Participants must achieve all of the outcomes in order to pass competency-based assessment.</p> <table border="1" data-bbox="360 1760 986 1917"> <thead> <tr> <th>Grade</th> <th>Meaning</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td>M</td> <td>Merit Pass</td> <td>Credits Earned</td> </tr> <tr> <td>P</td> <td>Pass</td> <td>Credits Earned</td> </tr> <tr> <td>NC</td> <td>Not Yet Competent</td> <td>No Credits Earned</td> </tr> </tbody> </table>	Grade	Meaning	Result	Percentage	A	Distinction	Credits Earned	80 – 100	B	Merit	Credits Earned	65 – 79	C	Pass	Credits Earned	50 - 64	D	Fail	No Credits Earned	0 - 49	Grade	Meaning	Result	M	Merit Pass	Credits Earned	P	Pass	Credits Earned	NC	Not Yet Competent	No Credits Earned
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	<p><b>5.3 Paearu Taumata   Grade Criteria</b> Students may be awarded one of the following grades for a course: <b>Table 4: Grade Criteria</b></p>																																

	Grade	Meaning	Criteria
	CR	Credit Recognition	The student has applied for and been awarded a credit recognition from another qualification
	CTG	Continuing	The Course runs for more than one semester and the final Summative Assessment has not yet occurred. No Credits earned
	DEF	Deferred	The student has approval to complete a Course Assessment beyond the schedule date. Unless an exception has been approved, any Deferred Grade remaining on a student's record beyond a duration equal to that of the original course will be changed to the grade to which the Student would otherwise be entitled. No Credits earned.
	DNC	Did not Complete	The grade DNC (Did Not Complete) is recorded if a student has either withdrawn after 75% of the scheduled Course duration; or not attempted a compulsory item of Assessment within a Course. No Credits earned.
	ES	Student Exchange	The Student has completed an approved inter-institutional exchange and it is not appropriate for another grade to be awarded. No Credits earned.
	NGA	No Grade Associated	Course assessment and reporting of results are not required for this course or are carried out by an external agency. No Credits earned
	R	Restricted Pass	The student has been awarded a restricted pass subject to Relevant clause in this schedule. Credits earned.
	W	Withdrawn	The student withdraws from a Course after 10% of the scheduled Course duration and up to, or at, the date at which 75% of the scheduled Course has passed. No credits earned.
	#	Estimated Grade	If any portion of Summative Assessment has been estimated, the final grade will be an estimated grade, and annotated "#" on the Student's Academic Record.
<p><b>6. Aromatawai Mahinga   Assessment Procedures</b></p> <p><i>Assessment Procedures comply with Unitec's Assessment Moderation and Grades Policy and associated procedure.</i></p>	<p><b>6.1 Ākoranga Aromatawai   Course Assessment</b></p> <p>Courses employ both formative and summative assessment activities. Formative assessments do not contribute to the final grade for a given course. All summative assessment elements are compulsory unless otherwise approved and noted in course information.</p> <p>Students must attempt all compulsory assessment activities in order to pass and receive credit for any course. Students who do not attempt a compulsory item of assessment may be awarded a 'Did Not Complete'(DNC) for the whole course and may not earn any credits.</p> <p><b>6.2 Aromatawai I Roto I Te Reo   Assessment in Te Reo</b></p> <p>All students have the right to submit any summative assessment task in Te reo Māori. The process for submission of summative assessment work in Te reo Māori is governed by the Unitec Assessment in Te Reo Māori procedure and detailed in course material.</p> <p><b>6.3 Tāpaetanga Tōmuri   Submission and late submission of work</b></p> <ol style="list-style-type: none"> <li>The due dates for all summative assessment work will be notified at the commencement of each course.</li> <li>Any assessment that is submitted late (and does not have a prior approved extension) will be penalised by a deduction of 10% per day of the participants assignment mark, up to five (5) days, inclusive of weekends.</li> <li>Applications for extensions must be made by according to procedure noted in Student Handbooks and course documentation.</li> </ol>		

- d. Any extension will be carried out within a specified time period as agreed with the relevant academic authority and no further extensions will be granted.
- e. No assessment will be accepted five (5) days (inclusive of weekends) after the due date. If the assessment is not compulsory, the participants will receive a 'zero' grade for that assessment. If the assessment is compulsory, then the participants will receive a Did Not Complete (DNC) grade for the entire course.

#### **6.4 Whakamātautau Anō | Resubmission or Reassessment**

A student may apply to undertake a resubmission/reassessment for a failed assessment within 5 days of receiving their marked assessment.

The following conditions apply:

- a. two resubmissions of written theory tests and one resubmission of written assignments and practical assessments are permitted.
- b. Any approved resubmission/reassessment will be carried out within a specified time period as agreed with the relevant academic authority.
- c. In all cases for resubmission, the original marked assessment will accompany resubmitted assessment. If resubmitted work is not accompanied by the original marked assignment, the resubmitted work will not be marked and the original grade will stand.
- d. The maximum grade for any resubmission/reassessment of an assessment is the lowest pass grade.
- e. Assessments that are handed in late are not eligible for resubmission or reassessment.

#### **6.5 Āhuatanga Aromatawai Motuhake | Affected Performance Consideration**

A student may apply for Affected Performance Consideration (APC) if:

- The student is unable to attend an examination, compulsory assessment or fixed time and place assessment activity due to illness, injury, bereavement or other critical circumstances
- The student's preparation for, or performance in an examination or any summative assessment has been seriously impaired due to circumstances beyond their control

Applications for APC are made by a student within 5 working days of the affected assessment event. Decisions to approve an APC and to apply any remedy are made according to the Assessment and Grading Procedures and Regulations.

#### **6.6 Pāhi Rāhui | Restricted Pass**

Restricted passes are not available in this programme.

#### **6.7 Tuaruatanga | Repeating Courses**

Students who are repeating a Level 1–8 course would normally be required to submit all assessment items. In some cases, with the prior approval of the relevant academic authority, students may not be required to repeat an equivalent assessment item that they had previously passed. This should be negotiated within the first two weeks of the commencement of the course and will specify any course grade that will be carried over.

Students may enrol and repeat a course that they have failed only once. Permission to enrol for a third time is governed by Exclusion provisions below.

#### **6.8 Whakakorenga | Exclusions**

No student will be allowed to enrol in any course more than twice unless there are exceptional circumstances approved by the relevant academic authority.

- a. Any Student who fails to achieve at least 50 per cent of the credits that he or she is enrolled in in any 12-month period may be excluded by the relevant Academic Authority from re-enrolling in any further courses. The decision whether students can re-enrol in further courses will be based on a student's likelihood of succeeding in further study and will be made by the relevant Head of School.
- b. When calculating the 12-month period in a. above, Unitec reserves the right to include any relevant time spent by the Student studying at another tertiary institution.
- c. A Student who has not achieved a Pass Grade in the same Course on two occasions shall not be enrolled again for that Course except with the permission of the relevant Academic Authority.

	<p>d. The relevant Academic Authority will advise the Student in writing of their decision, and the reasons for such decision, and any orders made.</p> <p><b>6.9 Examination Regulations</b> There are no formal examinations in this programme.</p> <p><b>6.10 Tono Pira   Appeals</b> Students may appeal the decisions made under these regulations in accordance with the Student Appeal Procedure.</p>
<p><b>7. Whakaritenga Whānui   General Provisions</b></p>	<p><b>7.1 Whakamāramatanga ā-kaupapa   Definition of Terms</b> In these regulations, unless the context otherwise requires, the following definitions shall apply:</p> <ul style="list-style-type: none"> <li>• ‘Relevant academic authority’ refers to an individual or role holder, or in some cases a committee, who have been delegated the authority to make a decision within a specific circumstance. A schedule of the various relevant academic authority delegations is maintained by the Programme Academic Quality Committee responsible for the Programme.</li> </ul> <p><b>7.2 Āhuatanga Tauwhirowhiro Ritenga   Transitional Arrangements</b> Candidates enrolled in programmes leading to the replaced Certificate in Automotive Engineering and Certificate in Applied Technology – Automotive, Autotronics who are unable to complete by 31 December 2021 shall transfer their existing achievement to this programme. No existing candidates will be disadvantaged by these transition arrangements.</p>